AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions, and listings, of claims the application.

LISTING OF CLAIMS

Claims 1 - 4. (canceled)

Claim 5. (withdrawn) A device as in claim 23, where said lensing element is made of polystyrene latex.

Claim 6. (withdrawn) A device as in claim 23, where said lensing element is made of glass.

Claim 7. (withdrawn) A device as in claim 23 further comprising multiple lens elements attached together.

Claims 8-22 (canceled)

Claim 23. (withdrawn) An optical device comprising:

a spherical lensing element having a diameter of 10 μm or less, the spherical lensing element configured to collimate incident light to generate a collimated light beam; and an optical imaging element receiving the collimated light beam.

Claim 24. (previously presented) The optical device of claim 23 wherein the incident light is generated by a source element having a diameter of 10 μm or less that is in physical contact with the spherical lensing element, the diameter of the source element smaller than the diameter of the lensing element.

Claim 25. (previously presented) The optical device of claim 24 wherein the incident light is generated by fluorescence of the source element.

Claim 26. (previously presented) The optical device of claim 24 wherein the optical imaging element is configured to detect an amplitude of the collimated light beam.

Claim 27. (previously presented) The optical device of claim 26 wherein the optical imaging element is configured to detect an angle of orientation of the linked source and lensing elements relative to the optical imaging element.

Claim 28. (previously presented) The optical device of claim 26 wherein the optical imaging element is configured to detect a rate of change of an angle of orientation of the joined source and lensing elements relative to the optical imaging element.

Claim 29. (previously presented) The optical device of claim 26 wherein the optical imaging element comprises a photodetector.

Claim 30. (withdrawn) The optical device of claim 2.3 wherein the incident light is emitted from a surface of an object that is to be imaged.

Claim 31. (previously presented) The optical device of claim 29 wherein the lensing element is configured to receive the incident light reflected from the surface.

Claim 32. (withdrawn) The optical device of claim 30 wherein the lensing element is configured to receive the incident light generated by fluorescence of the object.

Claim 33. (withdrawn) The optical device of claim 30 wherein the optical imaging element comprises a photodetector.

Claim 34. (withdrawn) The optical device of claim 30 wherein the diameter of the optical imaging element is smaller than a wavelength of the incident light, thereby enabling a resolution greater than a diffraction limit of the radiation.

Claim 35. (withdrawn) The optical device of claim 30 further comprising optical tweezers holding the lensing element over the surface.

Claim 36. (withdrawn) The optical device of claim 23 wherein the lensing element is configured to receive a laser beam emitted by a laser.

Claim 37. (withdrawn) The optical device of claim 36 wherein the lensing element is positioned on an output mirror of the laser.

Claim 38. (withdrawn) The optical device of claim 36 wherein the laser is a diode laser emitting a laser beam having a width of less than 10 μm, such that the entire width of the laser beam is collimated by the lensing element.

Claim 39. (withdrawn) The optical device of claim 23 end of an optical fiber.

Claim 40. (withdrawn) The optical device of claim 39 wherein the lensing element is positioned on the end of the optical fiber.

Claim 41. (withdrawn) The optical device of claim 39 wherein the lensing element is configured to improve a coupling efficiency of the light.

Claim 42. (withdrawn) A method of focusing light comprising collimating incident light with a spherical lensing element having a diameter of 10 μm or less.

Claim 43. (previously presented) The method of claim 42 further comprising generating the incident light from a source element having a diameter of 10 μm or less in physical contact with the spherical lensing element, the diameter of the source element smaller than the diameter of the lensing element.

Claim 44. (previously presented) The method of claim 43 wherein the incident light is generated by fluorescence of the source element.

Claim 45. (previously presented) The method of claim 42 further comprising detecting an amplitude of the collimated light.

Claim 46. (previously presented) The method of claim 45 further comprising correlating the amplitude of the collimated light with an angle of orientation of the linked source and lensing elements relative to an optical imaging element.

Claim 47. (previously presented) The method of claim 46 wherein the correlation comprises determining a rate of change of an angle of orientation of joined source and lensing elements relative to the optical imaging element.

Claim 48. (withdrawn) The method of claim 42 wherein the incident light is emitted from a surface of an object that is to be imaged.

Claim 49. (withdrawn) The method of claim 48 wherein the incident light is reflected from the surface.

Claim 50. (withdrawn) The method of claim 48 wherein the incident light is generated by fluorescence of the object.

Claim 51. (withdrawn) The method of claim 48 wherein the diameter of the optical imaging element is smaller than a wavelength of the incident light, thereby enabling a resolution greater than a diffraction limit of the radiation.

Claim 52. (withdrawn) The method of claim 48 further comprising holding the lensing element over the surface with optical tweezers.

Claim 53. (withdrawn) The method of claim 42 wherein the incident light is a laser beam.

Claim 54. (withdrawn) The method of claim 53 further comprising positioning the lensing element on an output mirror of a laser generating the laser beam.

Claim 55. (withdrawn) The method of claim 53 wherein the laser beam is emitted from a laser diode and has a width of less than 10 μm, such that an entire width of the laser beam is collimated by the lensing element.

Claim 56. (withdrawn) The method of claim 42 further comprising positioning the lensing element on an end of an optical fiber such that a coupling efficiency of the incident light is achieved.